Stack Automation by Quali: Physical Management Server

Contents

Product overview 2
Features and benefits 2
Prominent feature 3
Stack Automation Management Server scalability support 4
Licensing 4
Product sustainability 5
Product environmental information 5
Product specifications 6
System requirements 9
Cisco and Partner Services 11
Cisco Capital 11
Learn more 11

© 2026 Cisco and/or its affiliates. All rights reserved.

A ready-to-run platform with all Stack Automation by Quali management utilities built in, streamlining blueprint, deployment and automation artifacts to deliver a faster, simpler deployment and automation experience out of the box.

Product overview

The Stack Automation Management Server is a dedicated, Cisco® server that delivers every Stack Automation management utility ready to run out of the box. Its services run as containers, and it can optionally host Cisco Nexus® Dashboard and Cisco Intersight® Assist or Intersight Connected Virtual Appliance (CVA) (Intersight Assist/CVA) as virtual machines. It is available in one- or three-node configurations.

Installed on the management network, the Stack Automation Management Server calls home to the Stack Automation portal to download its configuration, then bootstraps the infrastructure. DHCP assigns initial addresses to Cisco Integrated Management Controller (CIMC) and switch management interfaces, HTTPS and a local mirror deliver images and configurations, network discovery finds new devices, and servers are automatically claimed in Intersight. Automation runners execute full-stack Solutions Hub blueprints, such as Cisco AI POD, on premises, while built-in load balancing serves Kubernetes and OpenShift control planes.

Enterprise data center and infrastructure teams use it to take new hardware from rack to a production-ready full-stack solution with minimal manual effort. The primary value is speed and consistency: network, compute, storage, and container platforms are deployed from validated blueprints every time, reducing deployment time and configuration errors.

Features and benefits

Table 1. Features and benefits

Feature	Benefit
Stack Automation Management Server artifacts	Eliminates manual installation and setup of management services. Accelerates time to first deployment.
Automated call-home configuration	Applies configurations automatically from the Stack Automation portal. Keeps services current with centrally delivered updates.
Automated infrastructure bootstrapping	Assigns initial addresses to CIMC and switch-management interfaces. Claims servers in Intersight without manual steps. Discovers network devices automatically.

© 2026 Cisco and/or its affiliates. All rights reserved.

Feature	Benefit
On-premises blueprint execution	Runs full-stack and Cisco AI POD blueprints close to infrastructure. Delivers consistent, repeatable deployments from validated blueprints.
Local mirror and image delivery	Speeds delivery of images and configurations over HTTP. Reduces dependence on external connectivity during deployment.
Optional management software hosting	Consolidates Nexus Dashboard and Intersight CVA on one server.
One- or three-node deployment	Matches resilience to each site's availability requirements.
Runner environment support	Terraform, Ansible, Helm, AWS CloudFormation, OpenTofu, Shell, Kubernetes, CloudShell, Python.
IPAM	Accelerates provisioning through automated IP address allocation. Reduces address conflicts and manual configuration errors.
Cabling plan	Speeds up installation with clear, standardized connection maps.

Prominent feature

From rack to running solutions, automatically

Bringing up a new data-center solution can take weeks of manual work across network, compute, storage, and platform teams. The Stack Automation Management Server removes that effort. Once powered on, it calls home to the Stack Automation by Quali portal, applies its configurations, and begins bootstrapping the infrastructure with no manual setup.

From there, it executes full-stack Solutions Hub blueprints, such as Cisco AI POD, entirely on premises, delivering the same validated result at every site.

The Stack Automation Management Server does the following:

- Assigns initial addresses and discovers new network and compute devices automatically
- Claims servers in Intersight without manual registration
- Delivers images and configurations locally from a built-in mirror over HTTPS
- Runs blueprint automation close to infrastructure for speed and reliability

© 2026 Cisco and/or its affiliates. All rights reserved.

One server for the entire management stack

Most automation platforms assume that the management tools they depend on already exist. The Stack Automation Management Server goes further: alongside its own containerized services, it can host Nexus Dashboard and Intersight Assist/CVA as virtual machines on the same server. Customers get a complete, pre-integrated management stack without sourcing, sizing, or integrating separate infrastructure.

The platform is sized for these workloads and is available in one- or three-node configurations to match each site's availability needs. It also hosts locally the deployment images that blueprints require, so installations do not depend on external downloads. For customers who already run Nexus Dashboard and Intersight elsewhere, a lightweight virtual bootstrap option delivers the same core automation services.

Stack Automation Management Server scalability support

Table 2. Physical Management Server specs

Item	Detail
Local mirror	6.2 TB for ISOS, OVA and drivers
Blueprint concurrent deployments	10
HA	With 3-node option
Storage expansion	6 free NVMe bays

Licensing

The Stack Automation Management Server does not require a license to run; however, licensing applies at the Stack Automation account level, as described below. Visit the following link – Stack Automation by Quali licensing.

© 2026 Cisco and/or its affiliates. All rights reserved.

Product sustainability

Information about Cisco's Environmental, Social, and Governance (ESG) initiatives and performance is provided in Cisco's CSR and sustainability reporting.

Table 3. Cisco environmental sustainability Information

Sustainability Topic		Reference
General	Information on product-material-content laws and regulations	https://www.cisco.com/c/en/us/about/product-innovation-stewardship/materials.html
	Information on electronic waste laws and regulations, including our products, batteries and packaging	https://www.cisco.com/c/en/us/about/product-innovation-stewardship/product-recycling/weee-compliance.html
	Information on product takeback and reuse program	https://www.cisco.com/c/en/us/about/takeback-and-reuse.html
	Sustainability Inquiries	Contact: csr_inquiries@cisco.com
	Operating and nonoperating conditions	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-c-series-rack-servers/ucs-c225-m8-rack-server-ds.html#productspec
Material	Product packaging weight and materials	Contact: environment@cisco.com

Product environmental information

Product environmental information for users per Commission Regulation (EU) 2019/424

https://www.cisco.com/web/dofc/25627213.pdf

© 2026 Cisco and/or its affiliates. All rights reserved.

Product specifications

Table 4. Stack Automation Management Server specifications

Services and slot density	Cisco UCS® C225 M8 Rack Server
CPU	1 x AMD EPYC 9645, 96 cores
RAM	384 GB: 12x 32 GB DDR5-6400 RDIMM, one DIMM per channel (all 12 channels)
vNIC	1 x Intel® X710T2LOCPV3G1L 2x10GbE RJ45
Disk	4x 3.8 TB U.3 NVMe SSD (Micron 7500, 1 DWPD) in RAID 5, 11.4 TB usable; 6 front bays free for expansion
Boot disk	2x 480 GB M.2 SATA SSD, hardware RAID 1, kept separate from the data drives
Out-of-band management	Cisco Integrated Management Controller (CIMC) with USB and virtual media boot for system restore
Hypervisor	KVM (libvirt), with HAProxy and keepalived on the host
Hosted applications	Stack Automation Utilities (management cell), Cisco Nexus Dashboard (optional data node), Cisco Intersight Connected Virtual Appliance (optional), NetBox (production)

Table 5. Stack Automation Management Server services

Services	Description
torque_service.service	Listening service for controller instructions
harbor.service	Harbor Container Registry
docker.service	Docker Application Container Engine
containerd.service	containerd container runtime
devpi.service	devpi PyPI server
httpd.service	Apache HTTP Server
named.service	Berkeley Internet Name Domain (DNS)

© 2026 Cisco and/or its affiliates. All rights reserved.

Services	Description
firewalld.service	firewalld (dynamic firewall daemon)
sshd.service	OpenSSH server daemon
zt-cleaner.service	ZT Disk Cleaner (reclaims space from unused caches)
NetworkManager.service	Network manager
chronyd.service	NTP client/server
rsyslog.service	System logging service
NetBox find the real service	

Table 6. Stack Automation Management [Server?] running containers

Name	Image
blob-protector	goharbor/prepare:v2.14.1
retention-guard	goharbor/prepare:v2.14.1
torque_agent-watchtower-1	nickfedor/watchtower:1.14.0
torque_agent-torque-agent-1	quali/torque-agent:5347c53eef
harbor-jobservice	goharbor/harbor-jobservice:v2.14.1
nginx	goharbor/nginx-photon:v2.14.1
harbor-core	goharbor/harbor-core:v2.14.1
harbor-db	goharbor/harbor-db:v2.14.1
redis	goharbor/redis-photon:v2.14.1
registryctl	goharbor/harbor-registryctl:v2.14.1
harbor-portal	goharbor/harbor-portal:v2.14.1
registry	goharbor/registry-photon:v2.14.1
harbor-log	goharbor/harbor-log:v2.14.1

© 2026 Cisco and/or its affiliates. All rights reserved.

Table 7. Stack Automation Management [Server?] installed images

Name	Image
quali/terraform	2.0.3e2efe4-tfincluded
quali/shell	2.0.3e2efe4
quali/terraform	2.0.341e196-tfincluded
quali/ansible	2.0.341e196
quali/shell	2.0.341e196
quali/terraform	2.0.e91e81e-tfincluded
quali/shell	2.0.e91e81e
quali/ansible	2.0.e91e81e
quali/terraform	2.0.be1a281-tfincluded
quali/terraform	2.0.99a3f03-tfincluded
quali/shell	2.0.99a3f03
quali/terraform	2.0.5eccba2-tfincluded
quali/shell	2.0.5eccba2
quali/terraform	2.0.8b6b082-tfincluded
quali/shell	2.0.8b6b082
quali/ansible	2.0.8b6b082
quali/terraform	2.0.08c4dfe-tfincluded
quali/shell	2.0.08c4dfe
quali/torque-agent	5347c53eef
nickfedor/watchtower	1.14.0
goharbor/harbor-exporter	v2.14.1

© 2026 Cisco and/or its affiliates. All rights reserved.

Name	Image
goharbor/redis-photon	v2.14.1
goharbor/trivy-adapter-photon	v2.14.1
goharbor/harbor-registryctl	v2.14.1
goharbor/registry-photon	v2.14.1
goharbor/nginx-photon	v2.14.1
goharbor/harbor-log	v2.14.1
goharbor/harbor-jobservice	v2.14.1
goharbor/harbor-core	v2.14.1
goharbor/harbor-portal	v2.14.1
goharbor/harbor-db	v2.14.1
goharbor/prepare	v2.14.1

System requirements

Table 8. System requirements

Feature	Description
Rack space and power	1RU per node in a standard 19-inch rack; two power feeds for redundant 1200 W power supplies
Deployment size	One (1) node for standard deployments or three (3) nodes for high availability
Management network	Out-of-band access to the server CIMC, plus Layer-2 reachability to CIMC and switch-management interfaces of managed devices for initial bootstrap
Data network	10/25/50 Gbps uplinks with SFP28 optics or cables; separate management and data subnets when hosting Nexus Dashboard

© 2026 Cisco and/or its affiliates. All rights reserved.

Feature	Description
IP addressing	Static addresses for the server and hosted VMs, plus a dedicated address range for DHCP bootstrap of managed devices
External connectivity from Stack Automation Management Server	stackautomation.cisco.com:443 jarvis.qtorque.io:443 registry-1.docker.io auth.docker.io production.cloudflare.docker.com:443 github.com:443 http-bulk-listener.logz.io:443 listener.logz.io:8071 repo.almalinux.org mirrors.almalinux.org vault.almalinux.org mirrors.fedoraproject.org dl.fedoraproject.org
Open ports (from Stack Automation Management Server to sevices/targets)	80/443 for ISO and media streaming and 22 for shell grains

Table 9. Physical Stack Automatin Management Server only

Requirement	Specification
Port 443	**Intersight Assist:** svc.intersight.com, svc-static1.intersight.com, svc.ucs-connect.com, tools.cisco.com **Nexus Dashboard:** svc.intersight.com, dcappcenter.cisco.com, smartreceiver.cisco.com

© 2026 Cisco and/or its affiliates. All rights reserved.

Cisco and Partner Services

Services from Cisco and our certified partners can help you transform the branch-office experience and accelerate business innovation and growth. We have the depth and breadth of expertise to create a clear, replicable, optimized branch-office footprint across technologies. Planning and design services align technology with business goals and can increase the accuracy, speed, and efficiency of your deployment. Technical services can help you improve operational efficiency, save money, and mitigate risk. Optimization services are designed to continuously improve performance and help your team succeed with new technologies. For more information, please visit http://www.cisco.com/go/services.

Cisco Capital

Flexible payment solutions to help you achieve your objectives

Cisco Capital® makes it easier to get the right technology to achieve your objectives, enable business transformation, and help you stay competitive. We can help you reduce the total cost of ownership, conserve capital, and accelerate growth. In more than 100 countries, our flexible payment solutions can help you acquire hardware, software, services, and complementary third-party equipment in easy, predictable payments. Learn more.

Learn more

- https://stackautomation.cisco.com/help
- https://www.cisco.com/site/us/en/solutions/data-center/stack-automation-quali/index.html

© 2026 Cisco and/or its affiliates. All rights reserved. Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: www.cisco.com/go/trademarks. Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)